Permit No.: **ID-000022-1**

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

Astaris Idaho, L. L. C.

is authorized to discharge from the Pocatello Plant located in **Pocatello, Idaho** at Outfall 001 (latitude: 42° 54' 44"; longitude: 112° 31' 10") to receiving waters named **Portneuf River** in accordance with the discharge point, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective October 30, 2001

This permit and the authorization to discharge shall expire at midnight, October 30, 2006

Signed this 27 day of September, 2001.

/s/ Mike Bussell, for
Randall F. Smith
Director
Office of Water, Region 10
U.S. Environmental Protection Agency

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I. EFFLUENT LIMITATIONS

A. Discharge Authorization. During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall specified herein to the Portneuf River, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of pollutants only in non-contact cooling water, boiler blowdown, ion exchange regeneration, and steam condensate from facility processes that have been clearly identified in the permit application process. This permit does not authorize the discharge of storm water and process water from any source to the Portneuf River.

B. Floating Solids, Visible Foam and Oily Waste. The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes which produce a sheen on the surface of the receiving water.

C. Effluent Limitations for Outfall 001 Discharge. The permittee must limit discharges from outfall 001 as specified in Table I-1, below. All numerical values represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits listed in the table at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

TABLE I-1: OUTFALL 001 EFFLUENT LIMITATIONS

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Maximum	Minimum Daily
Aluminum, total recoverable [Note 1]	µg/L	65	160	---	---
	lbs/day	1.2	3.0	---	---
Ammonia, total (as N) [Note 1]	µg/L	390	1,000	---	---
	lbs/day	7.4	19	---	---
Cadmium, total recoverable [Note 1]	µg/L	2.8	7.4	---	---
	lbs/day	0.053	0.14	---	---
Copper, total recoverable [Note 1]	µg/L	16	28	---	---
	lbs/day	0.29	0.54	---	---
Cyanide, weak acid dissociable (WAD) [Notes 1, 4 & 5]	µg/L	0	0	0	---
Fluoride, total [Note 1]	mg/L	0.37	0.89	---	---
	lbs/day	7.0	17	---	---
Inorganic Nitrogen, total [Note 3]	mg/L	0.32	0.64	---	---
	lbs/day	6.0	12	---	---
Lead, total recoverable [Note 1]	µg/L	12	33	---	---

TABLE I-1: OUTFALL 001 EFFLUENT LIMITATIONS					
Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Maximum	Minimum Daily
	lbs/day	0.23	0.63	---	---
Mercury, total recoverable Note 1	ng/L	11	16	---	---
	lbs/day	0.00021	0.00030	---	---
Orthophosphate (as P)	µg/L	50	150	---	---
	lbs/day	0.95	2.9	---	---
Oxygen, dissolved (DO)	mg/L	---	---	---	6.0
pH	s.u.	---	9.0	---	6.5
Phosphorus, elemental Notes 1, 4 & 5	µg/L	0	0	0	---
Phosphorus, total (as P)	µg/L	90	240	---	---
	lbs/day	1.6	4.6	---	---
Selenium, total recoverable Note 1	µg/L	4.9 Note 6	13	---	---
	lbs/day	0.093	0.25	---	---
Solids, total suspended (TSS)	mg/L	10	20	---	---
	lbs/day	190	380	---	---
Temperature (Dec - Feb)	°C	---	---	---	---
	BTU/day	---	---	---	---
Temperature Note 2 (Mar)	°C	---	22	26	---
	BTU/day	---	1.80×10^9	---	---
Temperature Note 2 (Apr, May, Oct, Nov)	°C	---	9	13	---
	BTU/day	---	1.21×10^9	---	---
Temperature Note 2 (Jun - Aug)	°C	---	19	22	---
	BTU/day	---	1.66×10^9	---	---
Temperature Note 2 (Sep)	°C	---	23	31	---
	BTU/day	---	1.85×10^9	---	---

Footnotes:

1 The permittee is required to follow the reporting requirements in Part II.C.10, Twenty-four Hour Notice of Noncompliance Reporting, if the maximum daily limit or instantaneous maximum limit is violated.

2 Thermal loading must be computed using the following formula:
[flow (gal/day)] x [8.345 (lb/gal)] x [1.0 BTU/lb/°F] x [effluent temperature (°F)]
or
[flow (gal/day)] x [8.345 (lb/gal)] x [1.0 BTU/lb/°F] x {[effluent temperature (°C)] x [1.8] + 32}

3 Inorganic nitrogen must be computed by summing the analytical values for ammonia and nitrate plus nitrite.

4 Discharge of this parameter is not authorized and shall be below the detection level prior to discharge based upon the EPA approved method in Table II-5.

5 The final compliance evaluation level is the method detection limit (MDL) for the method specified in Table II-5.

6 The final compliance evaluation level is the minimum level (ML) for the method specified in Table II-5.

D. Interim Effluent Limitations for Outfall 001 Discharge. Until compliance with the effluent limitations is achieved under Part I.E, the permittee must limit discharges from outfall 001 as specified in Table I-2, below. All numerical values represent maximum effluent limits unless otherwise indicated. Until the time of compliance indicated in Part I.E, the permittee must comply with the interim effluent limits listed in the table at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

TABLE I-2: OUTFALL 001 INTERIM EFFLUENT LIMITATIONS

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Maximum	Minimum Daily
Temperature [Note 1] (Mar - November)	°C	---	---	---	---
	BTU/day	---	4.39×10^8	---	---

Footnotes:

1 Thermal loading must be computed using the following formula:
[flow (gal/day)] x [8.345 (lb/gal)] x [1.0 BTU/lb/°F] x [daily average effluent temperature (°F) - 70 (°F)]
or
[flow (gal/day)] x [8.345 (lb/gal)] x [1.0 BTU/lb/°F] x {[daily average effluent temperature (°C) - 21.1 (°C)] x [1.8] + 32}

E. Compliance Schedules for Outfall 001 Effluent Limitations.

1. Temperature.

   a. The permittee must achieve compliance with the temperature effluent limitations of Part I.C for Outfall 001 (Table I-1), within 3 years and 8 months of the effective date of this permit.

   b. Until compliance with the effluent limits is achieved, at a minimum, the permittee must complete the tasks required in Table I-3.

TABLE I-3: TASKS REQUIRED UNDER THE COMPLIANCE SCHEDULE FOR TEMPERATURE
Within 180 days of the effective date of this permit: • Develop O&M Plans on existing systems. • Conduct detailed review of plant water balance and discharge system.
Within 1 year and 3 months of the effective date of this permit: • Conduct engineering study to identify feasible alternatives to meet effluent limitations. • Submit study to EPA, IDEQ, and the Shoshone-Bannock Tribes at the addresses in Part II.C.8 of this permit.
Within 1 year and 6 months of the effective date of this permit: • Determine feasible alternatives to meet effluent limitations. • Select preferred alternative(s) and notify EPA, IDEQ and the Shoshone-Bannock Tribes, in writing, of the preferred alternative(s) at the addresses in Part II.C.8 of this permit.
Within 2 years and 6 months of the effective date of this permit: • Report on progress toward implementation of preferred alternative(s). • Begin implementation of preferred alternative(s) to meet effluent limitations.
Within 3 years and 6 months of the effective date of this permit: • Complete implementation of preferred alternative(s) to meet effluent limitations. • Notify EPA, IDEQ and the Shoshone-Bannock Tribes, in writing, that implementation is complete at the addresses in Part II.C.8 of this permit.
Within 3 years and 8 months of the effective date of this permit: • Comply with effluent limitations.

2. Aluminum, Ammonia, Cadmium, Copper, Fluoride, Lead, Mercury, and Selenium.

   a. The permittee must achieve compliance with the aluminum, ammonia, cadmium, copper, fluoride, lead, mercury, and selenium effluent limitations of Part I.C for Outfall 001 (Table I-1), within 1 years and 10 months of the effective date of this permit.

   b. Until compliance with the effluent limits is achieved, at a minimum, the permittee must complete the tasks required in Table I-4.

TABLE I-4: TASKS REQUIRED UNDER THE COMPLIANCE SCHEDULE FOR ALUMINUM, AMMONIA, CADMIUM, COPPER, FLUORIDE, LEAD, MERCURY, AND SELENIUM
Within 180 days of the effective date of this permit: • Develop O&M Plans on existing systems. • Conduct detailed review of plant water balance and discharge system. • Prepare an evaluation and engineering assessment.
Within 7 months of the effective date of this permit: • Determine potential contamination sources to the discharge system with alternatives to mitigate contamination. • Submit study to EPA, IDEQ, and the Shoshone-Bannock Tribes at the addresses in Part II.C.8 of this permit.
Within 10 months of the effective date of this permit: • Select preferred alternative(s) and notify EPA, IDEQ and the Shoshone-Bannock Tribes, in writing, of the preferred alternative(s) at the addresses in Part II.C.8 of this permit. • Begin implementation of preferred alternative(s) to mitigate contamination.
Within 1 year and 10 months of the effective date of this permit: • Complete implementation of preferred alternative(s) to mitigate contamination. • Comply with effluent limitations.

3. Total Inorganic Nitrogen, Total Phosphorus, and Orthophosphate.

   a. The permittee must achieve compliance with the total inorganic nitrogen (TIN), total phosphorus, and orthophosphate effluent limitations of Part I.C for Outfall 001 (Table I-1), within 5 years of the effective date of this permit.

   b. Until compliance with the effluent limits is achieved, at a minimum, the permittee must complete the tasks required in Table I-5.

TABLE I-5: TASKS REQUIRED UNDER THE COMPLIANCE SCHEDULE FOR TOTAL INORGANIC NITROGEN (TIN), TOTAL PHOSPHORUS, AND ORTHOPHOSPHATE
Within 180 days of the effective date of this permit: • Develop O&M Plans on existing systems. • Conduct detailed review of plant water balance and discharge system.
Within 7 months of the effective date of this permit: • Determine potential contamination sources to the discharge system with alternatives to mitigate contamination. • Submit study to EPA, IDEQ, and the Shoshone-Bannock Tribes at the addresses in Part II.C.8 of this permit.
Within 10 months of the effective date of this permit: • Select preferred alternative(s) and notify EPA, IDEQ and the Shoshone-Bannock Tribes, in writing, of the preferred alternative(s) at the addresses in Part II.C.8 of this permit.
Within 1 year and 10 months of the effective date of this permit: • Implement preferred alternative(s) to mitigate contamination.
Within 2 years of the effective date of this permit: • Conduct engineering study to identify feasible alternatives to meet effluent limitations. • Submit study to EPA, IDEQ, and the Shoshone-Bannock Tribes at the addresses in Part II.C.8 of this permit.
Within 2 years and 3 months of the effective date of this permit: • Determine feasible alternatives to meet effluent limitations. • Select preferred alternative(s) and notify EPA, IDEQ and the Shoshone-Bannock Tribes, in writing, of the preferred alternative(s) at the addresses in Part II.C.8 of this permit. • Begin implementation of preferred alternative(s) to meet effluent limitations.
Within 3 years of the effective date of this permit: • Report on progress toward implementation of preferred alternative(s).
Within 4 years of the effective date of this permit: • Report on progress toward implementation of preferred alternative(s).
Within 4 years and 9 months of the effective date of this permit: • Complete implementation of preferred alternative(s) to meet effluent limitations. • Notify EPA, IDEQ and the Shoshone-Bannock Tribes, in writing, that implementation is complete at the addresses in Part II.C.8 of this permit.
Within 5 years of the effective date of this permit: • Comply with effluent limitations.

II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS

A. Monitoring Requirements.

1. Effluent Monitoring Requirements.

a. The permittee must monitor discharges from outfall 001 as specified in Table II-1.

b. Effluent Sample Location. Effluent samples must be collected at the downstream end of the IWW ditch, within 20 feet of the underground culvert.

2. Internal Waste Stream Monitoring Requirements.

a. The permittee must conduct internal monitoring as specified in Table II-2.

b. Internal Waste Stream Sample Location. Internal waste stream samples must be collected for the discharge of wastewater from the boiler blowdown system as indicated on Figure II-1.

TABLE II-1: EFFLUENT MONITORING REQUIREMENTS [Note 1]			
Parameter	Units	Sample Frequency	Sample Type
Aluminum, total recoverable	µg/L	1/week	24-hour composite
Ammonia, total (as N)	µg/L	1/week	24-hour composite
Arsenic, total recoverable	µg/L	1/week	24-hour composite
Cadmium, total recoverable	µg/L	1/week	24-hour composite
Chlorine, total residual [Note 2]	µg/L	1/month	grab
Chromium, total recoverable	µg/L	1/week	24-hour composite
Copper, total recoverable	µg/L	1/week	24-hour composite
Cyanide, weak acid dissociable (WAD)	µg/L	1/week	grab
Flow	mgd	continuous	recording
Fluoride, total	mg/L	1/week	24-hour composite
Hardness (as $CaCO_3$)	mg/L	1/week	24-hour composite
Inorganic Nitrogen, total (as N)	mg/L	1/week	calculation
Lead, total recoverable	µg/L	1/week	24-hour composite
Mercury, total recoverable	ng/L	1/week	24-hour composite
Molybdenum, total recoverable	µg/L	1/week	24-hour composite
Nitrate+Nitrite (as N)	mg/L	1/week	24-hour composite
Organic Carbon, total (TOC)	mg/L	1/month	24-hour composite
Orthophosphate, total (as P)	µg/L	1/week	24-hour composite
Oxygen, dissolved (DO) [Note 3]	mg/L	continuous	recording
Petroleum Hydrocarbons, total (TPH)	mg/L	1/week	grab
pH [Note 3]	s.u.	continuous	recording
Phenols	mg/L	1/week	grab
Phosphorus, elemental (P_4)	µg/L	1/week	grab
Phosphorus, total (as P)	µg/L	1/week	24-hour composite
Radium-226 + Radium-228	pCi/L	1/week	grab
Selenium, total recoverable	µg/L	1/week	24-hour composite
Silver, total recoverable	µg/L	1/week	24-hour composite
Solids, total dissolved (TDS)	mg/L	1/week	24-hour composite
Solids, total suspended (TSS)	mg/L	1/week	24-hour composite
Specific Conductance [Note 3]	µmhos/cm	continuous	recording
Temperature	°C	continuous	recording
Thallium, total recoverable	µg/L	1/week	24-hour composite
Uranium, total recoverable	µg/L	1/week	24-hour composite
Whole Effluent Toxicity, chronic [Note 4]	TU_c	1/quarter [Note 5]	24-hour composite
Zinc, total recoverable	µg/L	1/week	24-hour composite

Footnotes:

1 Monitoring must be conducted according to test procedures specified in Table II-5 or approved under 40 CFR Part 136.
2 Monitoring must be conducted in the field using field laboratory test kits.
3 Monitoring must commence 30 days after EPA and IDEQ approval of the QAP.
4 Monitoring must commence in calendar year 2002.
5 Each sampling event must occur within different months during the quarter (e.g., January, April, July, and October in the first year; February, May, August, and November in the secon year, etc.).

TABLE II-2: INTERNAL WASTE STREAM MONITORING REQUIREMENTS [Note 1]			
Parameter	Units	Sample Frequency	Sample Type
Aluminum, total recoverable	µg/L	1/week	grab
Arsenic, total recoverable	µg/L	1/week	grab
Cadmium, total recoverable	µg/L	1/week	grab
Chromium, total recoverable	µg/L	1/week	grab
Copper, total recoverable	µg/L	1/week	grab
Flow	mgd	1/week	grab
Hardness (as $CaCO_3$)	mg/L	1/week	grab
Lead, total recoverable	µg/L	1/week	grab
Mercury, total recoverable	ng/L	1/week	grab
pH	s.u.	1/week	grab
Selenium, total recoverable	µg/L	1/week	grab
Silver, total recoverable	µg/L	1/week	grab
Thallium, total recoverable	µg/L	1/week	grab
Zinc, total recoverable	µg/L	1/week	grab

Footnotes:
1 Monitoring must be conducted according to test procedures specified in Table II-5 or approved under 40 CFR Part 136.

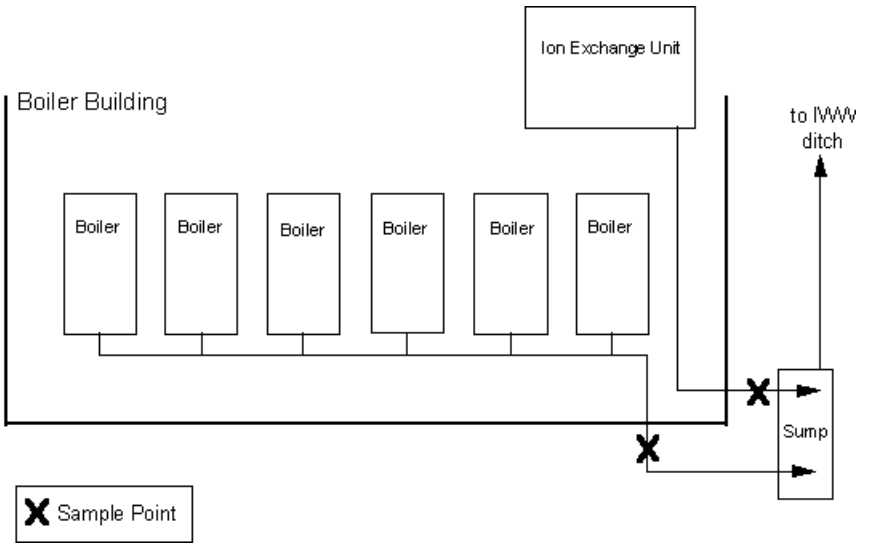

Figure II-1. Discharge monitoring location for internal waste stream monitoring of the boiler blowdown system.

3. Effluent Triggers. The permittee must initiate special monitoring requirements for WET, elemental phosphorus, and WAD cyanide as follows:

   a. Chronic Toxicity Trigger.

      (1) The chronic toxicity trigger is a reported toxicity level (100/NOEC) greater than 1.0 TUc.
      (2) Within fifteen (15) days of receipt of the sample results that indicate the chronic toxicity trigger level has been exceeded:

         (a) If the source of toxicity is known (e.g., temporary plant upset), then the permittee is required to perform one additional test. If the subsequent sample exceeds the chronic toxicity trigger, then the permittee is required to follow the steps prescribed in the facility's TRE Work Plan.
         (b) If the source of toxicity is unknown, the permittee is required to follow the steps prescribed in the facility's TRE Work Plan.
         (c) Notify the Director, IDEQ, the local district health office, and the Shoshone-Bannock Tribes in accordance with WET Reporting Requirements (Part II.C.2).

   b. Elemental Phosphorus (P4) Trigger.

      (1) The elemental phosphorus trigger is a reported level greater than the method detection limit (MDL) listed in Table II-5.
      (2) Immediately upon receipt of the sample results that indicate the trigger level for elemental phosphorus has been exceeded, the permittee must:

         (a) Perform daily samples until the sample results no longer exceed the trigger level.
         (b) Provide the appropriate notification in accordance with Elemental Phosphorus (P4) Reporting Requirements (Part II.C.3).

c. Weak Acid Dissociable (WAD) Cyanide Trigger.

(1) The WAD cyanide trigger is a reported level greater than the method detection limit (MDL) listed in Table II-5.
(2) Immediately upon receipt of the sample results that indicate the trigger level for WAD cyanide has been exceeded, the permittee must:

(a) Perform daily samples until the sample results no longer exceed the trigger level.
(b) Provide the appropriate notification in accordance with WAD Cyanide Reporting Requirements (Part II.C.4).

4. Receiving Water Monitoring Requirements.

a. The permittee must conduct receiving water monitoring activities within the same 24-hour period as effluent monitoring activities, to the extent possible.

b. The permittee must work with the IDEQ, the Shoshone-Bannock Tribes, and other Portneuf River stakeholders to establish approved upstream and downstream monitoring locations.

c. The permittee must monitor the receiving water for the parameters specified in Table II-3.

TABLE II-3: RECEIVING WATER MONITORING REQUIREMENTS [Note 1]				
Parameter	Units	Sample Frequency	Sample Location	Sample Type
Aluminum [Note 2]	µg/L	1/month	upstream & downstream	depth/spacially integrated
Ammonia, total (as N)	µg/L	1/month	upstream & downstream	depth/spacially integrated
Arsenic [Notes 2 & 3]	mg/L	1/month	upstream & downstream	depth/spacially integrated
Cadmium [Notes 2 & 3]	µg/L	1/month	upstream & downstream	depth/spacially integrated
Chlorine, total residual [Note 4]	µg/L	1/week	upstream	depth/spacially integrated
Chromium [Notes 2 & 3]	µg/L	1/month	upstream	depth/spacially integrated
Copper [Notes 2 & 3]	µg/L	1/month	upstream & downstream	depth/spacially integrated
Cyanide, WAD	µg/L	1/month	downstream	depth/spacially integrated
Flow	mgd	continuous	downstream	recording
Fluoride [Note 2]	mg/L	1/month	upstream & downstream	depth/spacially integrated
Hardness (as $CaCO_3$)	mg/L	1/month	downstream	depth/spacially integrated
Lead [Notes 2 & 3]	µg/L	1/month	upstream & downstream	depth/spacially integrated
Mercury [Notes 2 & 3]	ng/L	1/month	upstream & downstream	depth/spacially integrated
Molybdenum [Note 2]	µg/L	1/month	upstream & downstream	depth/spacially integrated
Nitrate+Nitrite (as N)	mg/L	1/month	upstream & downstream	depth/spacially integrated
TOC	mg/L	1/month	upstream & downstream	depth/spacially integrated
Orthophosphate (as P)	µg/L	1/month	upstream & downstream	depth/spacially integrated
Oxygen, dissolved (DO)	mg/L	continuous	upstream & downstream	recording
TPH	mg/L	1/month	upstream & downstream	depth/spacially integrated
pH	s.u.	continuous	upstream & downstream	recording
Phenols	µg/L	1/month	upstream & downstream	depth/spacially integrated

TABLE II-3: RECEIVING WATER MONITORING REQUIREMENTS Note 1				
Parameter	Units	Sample Frequency	Sample Location	Sample Type
Phosphorus, elemental (P_4)	µg/L	1/month	downstream	depth/spacially integrated
Phosphorus, total (as P)	µg/L	1/month	upstream & downstream	depth/spacially integrated
Radium-226 + Radium-228	pCi/L	1/month	upstream & downstream	depth/spacially integrated
Selenium Note 2	µg/L	1/month	upstream & downstream	depth/spacially integrated
Silver Notes 2 & 3	µg/L	1/month	upstream & downstream	depth/spacially integrated
TDS	mg/L	1/month	upstream & downstream	depth/spacially integrated
TSS	mg/L	1/month	upstream & downstream	depth/spacially integrated
Specific Conductance	µmhos/cm	continuous	upstream & downstream	recording
Temperature	°C	continuous	upstream & downstream	recording
Thallium Note 2	µg/L	1/month	upstream & downstream	depth/spacially integrated
Uranium Note 2	µg/L	1/month	upstream & downstream	depth/spacially integrated
Zinc Notes 2 & 3	µg/L	1/month	upstream & downstream	depth/spacially integrated

Footnotes:
1 Monitoring must be conducted according to test procedures specified in Table II-5 or approved under 40 CFR Part 136.
2 Total recoverable.
3 Dissolved fraction.
4 Sampling must be conducted in the field using field laboratory test kits.

5. Receiving Water Sediment Monitoring Requirements.

   a. The permittee must monitor receiving water sediments as specified in Table II-4, below.

   b. Sediment samples must be collected at points B, C, and D indicated on Figure II-2. The permittee must work with the IDEQ and the Shoshone-Bannock Tribes to establish a monitoring location for sample point A, upstream of the outfall. The permittee must report the monitoring location in the Quality Assurance Plan (Part III.A).

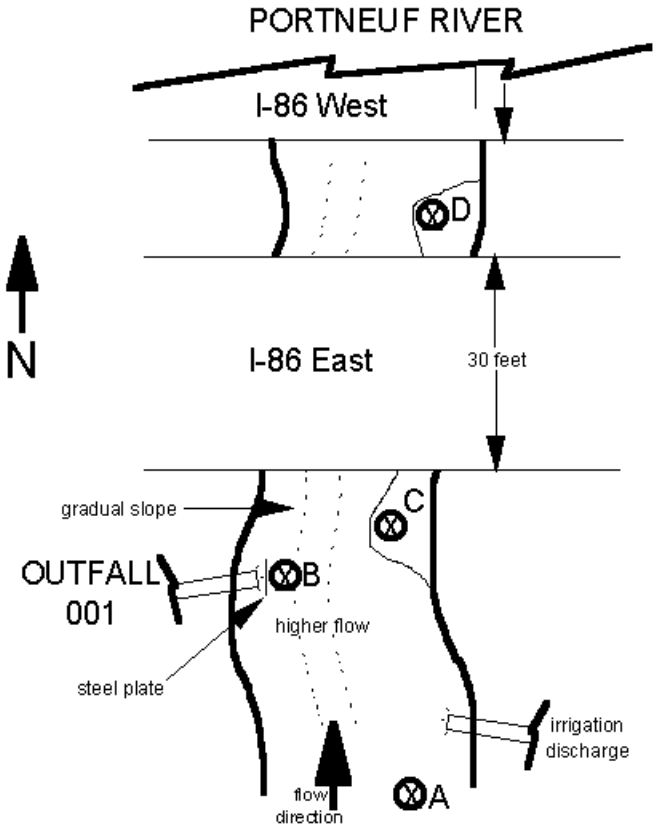

Figure II-2. Sediment Monitoring Locations.

TABLE II-4: SEDIMENT MONITORING REQUIREMENTS [Note 1]				
Parameter	Units	Sample Frequency [Note 2]	Sample Location	Sample Type [Note 3]
Ammonia	mg/kg	2/year	A, B, C & D	composite
Arsenic	mg/kg	2/year	A, B, C & D	composite
Cadmium	mg/kg	2/year	A, B, C & D	composite
Chromium	mg/kg	2/year	A, B, C & D	composite
Copper	mg/kg	2/year	A, B, C & D	composite
Fluoride	mg/kg	2/year	A, B, C & D	composite
Grain Size	---	2/year	A, B, C & D	composite
Lead	mg/kg	2/year	A, B, C & D	composite
Mercury	mg/kg	2/year	A, B, C & D	composite
Phenol	mg/kg	2/year	A, B, C & D	composite
Selenium	mg/kg	2/year	A, B, C & D	composite
Silver	mg/kg	2/year	A, B, C & D	composite
Total Solids	%	2/year	A, B, C & D	composite
Total Sulfides	mg/kg	2/year	A, B, C & D	composite
Total Organic Carbon (TOC)	%	2/year	A, B, C & D	composite
Total Volatile Solids	%	2/year	A, B, C & D	composite
Uranium	mg/kg	2/year	A, B, C & D	composite
Zinc	mg/kg	2/year	A, B, C & D	composite

Footnotes:

1 Monitoring must be conducted according to test procedures specified in Table II-6.

2 Sampling must occur during March and September.

3 Composite sampling for sediment monitoring must consist of the combination of three discrete sample aliquots of equal volume, collected during three separate sampling events from the same sampling location within the operating hours of the facility over a 24 hour period. Each aliquot shall be based on a benthic grab or core of the upper 2 cm sediment depth to minimize disruption of the sediment sample.

6. Other Monitoring Requirements.

   a. Representative Sampling (Routine and Non-Routine Discharges). Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

   b. Additional Sampling (Routine and Non-Routine Discharges).

      (1) In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.A of this permit that are likely to be affected by the discharge.
      (2) The permittee must collect additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with the Monitoring Test Procedures in Part II.A.6.c. The permittee must report all additional monitoring in accordance with Reporting Requirements for Additional Monitoring (Part II.C.9).

   c. Monitoring Test Procedures.

      (1) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
      (2) When conducting effluent and receiving water monitoring, the permittee must use the analytical methods, method detection limits (MDLs), and minimum levels (MLs) provided in Table II-5.
      (3) When conducting sediment monitoring, the permittee must use the analytical methods and method detection limits (MDLs) provided in Table II-6.

TABLE II-5: WATER ANALYTICAL TESTING REQUIREMENTS				
Parameter	Method Number [Note 1]	Units	MDL	ML
Aluminum	200.7	µg/L	20	---
Ammonia	350.1	µg/L	10	---
Arsenic	200.7	µg/L	8	---
Cadmium	213.2	µg/L	0.1	---
Chlorine	330.3, 330.4	mg/L	0.1	---
Chromium	200.7	µg/L	4	---
Copper	200.7	µg/L	3	---
Cyanide (WAD)	OIA-1677 [Note 2]	µg/L	0.5	---
DO	360.1	mg/L	0.3	---
Fluoride	340.3	mg/L	0.05	---
Lead	239.2	µg/L	1	---
Mercury [Note 3]	1631 Rev. B	ng/L	0.2	---
Molybdenum	200.7	µg/L	4	---
Nitrate+Nitrite	353.1 or 353.3	µg/L	10	---
TPH	NWTPH [Note 4]	mg/L	See Method	---
Phenols	604	µg/L	2.2	---
Phosphorus, elemental	See Note 5	µg/L	0.01	---
Radium-226 + Radium-228	904.0 [Note 6]	pCi/L	See Method	---
Selenium	270.2	µg/L	2	5
Silver	200.7	µg/L	2	---
Thallium	279.2	µg/L	1	---
TDS	160.1	mg/L	10	---
TOC	415.1	mg/L	1	---
TSS	160.2	mg/L	2	---
Uranium	1620 [Note 7]	mg/L	1	---
Zinc	200.7	µg/L	2	---

Footnotes:

1 All test methods are EPA approved and found in 40 CFR Part 136 unless otherwise identified.

2 This method was approved by EPA and incorporated into 40 CFR Part 136 on January 31, 2000 (64 FR 73414-73423).

3 This method recommends the use of clean techniques described in EPA's draft Method 1669: *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels* (EPA-821-R-96-011) to preclude contamination at low-level, trace metal determinations.

4 Carrell, Robert. Total Petroleum Hydrocarbons Analytical Methods For Soil and Water. Guidance for the Remediation of Releases From Underground Storage Tanks, Appendix L. Washington State Department of Ecology. Manchester Environmental Laboratory. April 1992. Revised Edition, October 1995.

5 R. F. Addison and R. G. Ackman, "Direct Determination of Elemental Phosphorus by Gas-Liquid Chromatography," Journal of Chromatography, vol. 47, No. 3, pp. 421-426, 1970.

6 *Prescribed Procedures for Measurement of Radioactivity in Drinking Water*, EPA-600/4-80-032, August 1980.

7 *Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy and Atomic Absorption Spectroscopy* (EPA 821-C-97-001).

TABLE II-6: SEDIMENT ANALYTICAL TESTING REQUIREMENTS				
Parameter	Prep Method	Analysis Method	Units	MDL Note 1
Ammonia	---	See Note 2	mg/kg	1
Arsenic	See Note 3	SW-846 Note 4	mg/kg	2.5
Cadmium	See Note 3	SW-846 Note 4	mg/kg	0.3
Chromium	See Note 3	SW-846 Note 4	mg/kg	0.3
Copper	See Note 3	SW-846 Note 5	mg/kg	15.0
Fluoride	Soil Extraction Note 14	SM 4500 F C Note 15	mg/kg	0.05
Grain Size	---	Modified ASTM with Hydrometer Note 13	---	---
Lead	See Note 3	SW-846 Note 5	mg/kg	0.5
Mercury	See Note 6	SW-846 747I Note 6	mg/kg	0.01
Phenol	SW-846 3550 Note 8	SW-846 8270 Note 9	mg/kg	20
Selenium	See Note 7	SW-846 7740 Note 7	mg/kg	1.0
Silver	See Note 3	SW-846 Note 4	mg/kg	0.2
Total Solids	---	See Note 10 (pg 17)	%	0.1
Total Sulfides	---	See Note 10 (pg 32)	mg/kg	1
Total Organic Carbon (TOC)	---	See Note 10 (pg 23) & 11	%	0.1
Total Volatile Solids	---	See Note 10 (pg 20)	%	0.1
Uranium	See Method	1620 Note 12	mg/kg	1.0
Zinc	See Note 3	SW-846 Note 5	mg/kg	15.0

TABLE II-6: SEDIMENT ANALYTICAL TESTING REQUIREMENTS				
Parameter	Prep Method	Analysis Method	Units	MDL Note 1

Footnotes:
1 Dry weight basis.
2 *Procedures For Handling and Chemical Analysis of Sediment and Water Samples*, Russell H. Plumb, Jr., EPA/Corps of Engineers, May, 1981.
3 *Recommended Protocols for Measuring Metals in Puget Sound Water, Sediment, and Tissue Samples*, Puget Sound Estuary Program, 1997, Appendix D.
4 Graphite Furnace Atomic Absorption (GFAA) Spectrometry - SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, 1986.
5 Inductively Coupled Plasma (ICP) Emission Spectrometry - SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, 1986.
6 Mercury Digestion and Cold Vapor Atomic Absorption (CVAA) Spectrometry - Method 747I, SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, 1986.
7 Selenium (Atomic Absorption, Furnace Technique) - Method 7740, SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, 1986.
8 Sonication Extraction of Sample Solids - Method 3550 (Modified), SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, 1986.
9 GCMS Capillary Column - Method 8270, SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, 1986.
10 *Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound*, Puget Sound Estuary Program, 1977.
11 *Recommended Methods for Measuring TOC in Sediments*, Kathryn Bragdon-Cook, Clarification Paper, Puget Sound Dredged Disposal Analysis Annual Review, May, 1993.
12 *Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy and Atomic Absorption Spectroscopy* (EPA 821-C-97-001).
13 Measurement of grain size will be determined following ASTM D 422 (modified). Hydrometer analysis should be used for particle sizes finer than the 230 mesh. Water content will be determined using ASTM D 2216 and sediment classification designation will be made in accordance with ASTM D 2487.
14 ASTM methods D4646-86, D5233-92, or D3987-85.
15 Ion-Selective Electrode, Standard Methods 4500-F⁻C.

d. Whole Effluent Toxicity (WET) test requirements.

(1) Test Species.

(a) The permittee must conduct tests annually with the species cladoceran, water flea (*Ceriodaphnia dubia*), for survival and growth;
(b) During the fourth year of the permit, the permittee must also conduct tests with the fathead minnow (*Pimphales promelas*) for survival and growth.

(2) The presence of chronic WET toxicity must be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Third Edition, Eds., Lewis P.A., D.J. Klemn, J.M. Lazorchak, T.J. Norberg-King, W.H. Peltier, and M.A. Herber (EPA/600/4-91/002).

(3) If two tested concentrations cause statistically adverse effects in the calculation of the NOEC but an intermediate concentration did not cause statistically

significant effects, then the test must be repeated or the lowest concentration must be used.

For example: 6.25, 12.5, 25, 50 and 100% effluent concentrations are tested. The 12.5 and 50% concentrations are statistically significant, but 25% is not significant. If the test is not repeated, then 6.25% must be reported as the NOEC.

(4) A series of at least five dilutions and a control must be tested. The series must include the receiving water concentration (RWC), two dilutions above the RWC, and two dilutions below the RWC. The expected RWC is 1.0 TUc.

(5) Organisms must not be cultured in-house. Concurrent testing with a reference toxicant must be conducted by the laboratory conducting the toxicity analysis.[1]

(6) If either the reference toxicant test or the effluent tests do not meet all test acceptability criteria (TAC) as specified in the test methods manuals, then the permittee must resample and retest within two weeks of receipt of the test results that indicate the reference toxicant test or the effluent tests did not meet all TAC.

(7) Control and dilution water should be receiving water or laboratory water, as specified in the test methods manuals. If the dilution water used is different from the culture water, a second control, using culture water must also be used.

(8) Chemical testing for the parameters for effluent monitoring (See Table II-1) must be performed on a split of each sample collected for whole effluent toxicity (WET) testing. To the extent that the timing of sample collection coincides with that of the sampling required in Effluent Monitoring Requirements of this permit, chemical analysis of the split sample will fulfill the requirements of that Part as well.

B. Recording Requirements.

1. Records Contents. Records of monitoring information must include:

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[1]Reference toxicants must also be conducted using the same test conditions as the effluent toxicity tests (e.g., the same test duration). In no case will water that has not met test acceptability criteria be used for either dilution or control.

a. the date, exact place (e.g., sample station number), and time of each sample or measurement;

b. the name(s) of the individual(s) who performed the sampling or measurements;

c. the weather conditions;

d. the decontamination procedures used for sampling equipment;

e. the volume of sample collected;

f. any deviation from the approved QAP;

g. the sample transport chain-of-custody;

h. the date(s) analyses were performed;

i. the name(s) of the individual(s) who performed the analyses;

j. the analytical techniques or methods used; and

k. the results of such analyses.

2. Retention of Records. The permittee must retain records of all monitoring information, including, all sampling logs and field notes, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of this NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director, IDEQ, or the Shoshone-Bannock Tribes at any time.

C. Reporting Requirements.

1. Effluent Reporting Requirements.

a. If the monitoring result is greater than the method detection limit (MDL), the permittee must report the actual value on the DMR. If a value is less than the MDL, the permittee must report “less than [MDL value]” on the DMR. For purposes of calculating monthly averages, zero may be used for values less than the MDL.

b. The permittee must summarize monitoring results each month on the DMR form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 10th day of the following month. The permittee must sign and certify all DMRs, and all other reports, in accordance with the Signatory Requirements of this permit (Part IV.J).

c. The permittee is not required to monitor or report for specific conductance, dissolved oxygen, or pH until 30 days after EPA and IDEQ approval of the QAP. Until the QAP has been approved by both agencies, the permittee must report on the monthly DMRs that monitoring these parameters is not required. The permittee must report to EPA that the QAP has been approved on the DMR for the month when the QAP has been approved by both agencies.

d. The permittee must established a network link to IDEQ for continuously monitored parameters that will allow IDEQ to track these data real-time.

2. Whole Effluent Toxicity Reporting Requirements.

a. The permittee must submit a full toxicity report with the DMR for the last month in a quarter (see definition of "Quarter" under Part V). The full toxicity report must consist of:
   (1) the toxicity test results;
   (2) the dates of sample collection and initiation of each toxicity test;
   (3) the toxicity trigger for the facility (see Chronic Toxicity Effluent Trigger in Part II.A.3.a.);
   (4) the type of activity occurring (e.g., non-contact cooling water);
   (5) the flow rate and temperature of the effluent at the time of sample collection; and
   (6) the chemical parameter monitoring required for the outfall as defined in Table II-1 of the permit.

b. The permittee must report all test results for chronic toxicity tests according to the Report Preparation chapter in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/600/4-91/002).

c. The permittee must report any exceedance of the toxicity trigger to the Director, IDEQ, and the Shoshone-Bannock Tribes, in writing, within fifteen (15) days of receipt of toxicity testing results. The report must include, at a minimum, the following information:

(1) a description of the actions the permittee has taken or will take to investigate and correct the cause(s) of toxicity in accordance with the TRE Work Plan;
(2) a status report on any actions required by the permit, with a schedule for actions not yet completed; and
(3) where no actions have been taken, include the reasons for not taking action.

3. Elemental Phosphorus (P4) Reporting Requirements. The permittee must report any exceedance of the trigger to the Director, IDEQ, the Shoshone-Bannock Tribes Water Quality Program Manager, and the local health district (Bannock County Office) by telephone, within 24 hours, and in writing, within fifteen (15) days, of receipt of testing results. The written report must include, as a minimum, the following information:

   a. A description of the cause for the exceedance, if known;

   b. A description of the actions the permittee has taken or will take to investigate and correct the cause(s);

   c. A status report on any actions taken, with a schedule for actions not yet completed; and

   d. Where no actions have been taken, include the reasons for not taking action.

4. Weak Acid Dissociable (WAD) Cyanide Reporting Requirements. The permittee must report any exceedance of the trigger to the Director, IDEQ, the Shoshone-Bannock Tribes Water Quality Program Manager, and the local health district (Bannock County Office) by telephone, within 24 hours, and in writing, within fifteen (15) days, of receipt of testing results. The written report must include, as a minimum, the following information:

   a. A description of the cause for the exceedance, if known;

   b. A description of the actions the permittee has taken or will take to investigate and correct the cause(s);

   c. A status report on any actions taken, with a schedule for actions not yet completed; and

   d. Where no actions have been taken, include the reasons for not taking action.

5. Laboratory Analytical Report. A written report will be prepared by the analytical laboratory documenting all the activities associated

with each sample analysis. The permittee is required to submit a copy of all laboratory analytical reports for samples analyzed during the month with the monthly DMR. As a minimum, the following will be included in the report:

a. Results of the laboratory analyses and QA/QC results.

b. All protocols used during analyses.

c. Chain-of-custody procedures.

d. Any protocol deviations from the approved methods.

6. Quality Assurance Report. Each month, the permittee will prepare a quality assurance report based upon activities involved with the field sampling and review of the laboratory analytical data. The laboratory QA/QC reports will be incorporated by reference. This report will identify any field and laboratory activities that deviated from the approved QAP and the referenced protocols and will make a statement regarding the overall validity of the data collected. The Quality Assurance Report will be certified by the dated signature of the Plant Manager, or authorized representative, and submitted with the monthly DMR.

7. Sediment Characterization Report. The permittee must submit a sediment characterization report by January 15th of each year. The report will include:

   a. A plan view showing the actual sampling locations identified by the station identification number.

   b. The sampling coordinates in latitude and longitude and the methods used to locate the sampling positions.

   c. Description of sampling and compositing procedures.

   d. The type of sampling equipment used during sampling and testing.

   e. A explanation of any deviations from the QAP protocols.

   f. A physical description of each sample, including sample date and location identification, water depth, and volume of sample.

   g. Chain-of-custody procedures used in sample handling and transport.

h. Analytical methods and test results for each sample, including QA/QC data qualifiers.

8. Submittal of Monitoring Results and Reports. The permittee must submit the legible originals of DMRs, laboratory analytical reports, and all other reports to the Director, Office of Water, with copies to IDEQ and the Shoshone-Bannock Tribes at the following addresses:

United States Environmental Protection Agency, Region 10
1200 Sixth Avenue, OW-133
Seattle, Washington 98101
(206)553-1846 NPDES Compliance Hotline

Idaho Department of Environmental Quality
Pocatello Regional Office
224 South Arthur
Pocatello, Idaho 83204
(208)236-6167

The Shoshone-Bannock Tribes
Fort Hall Indian Reservation
Land Use Department
Water Quality Program Manager
P.O. Box 306
Fort Hall, Idaho 83203
(208)478-3901.

9. Additional Monitoring by the Permittee.

a. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.

b. Upon request by the Director, the permittee must submit results of any other sampling, regardless of the test method used.

10. Twenty-four Hour Notice of Noncompliance Reporting.

a. The permittee must report the following occurrences of noncompliance to the Director, IDEQ, the Shoshone-Bannock Tribes, and the local health district (Bannock County Office) by telephone within 24 hours from the time the permittee becomes aware of the circumstances:

(1) any noncompliance that may endanger health or the environment;
(2) any unanticipated bypass that exceeds any effluent limitation in the permit (See Bypass in Part IV.N);
(3) any upset that exceeds any effluent limitation in the permit (See Upset in Part IV.O);
(4) any unauthorized discharges; or
(5) any violation of a maximum daily or instantaneous maximum discharge limitation for any of the pollutants in Table I-1 of the permit requiring 24-hour reporting.

b. The permittee must also provide a written submission to the Director, IDEQ, and the Shoshone-Bannock Tribes within five days of the time that the permittee becomes aware of any event required to be reported under Part II.C.10.a. The written submission must contain:

(1) a description of the noncompliance and its cause;
(2) the period of noncompliance, including exact dates and times;
(3) the estimated time noncompliance is expected to continue if it has not been corrected;
(4) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance; and
(5) date noncompliance was corrected and measures taken to prevent future conditions of noncompliance.

c. The Director, after informing the Shoshone-Bannock Tribes, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206)553-1846.

d. Reports must be submitted to the addresses sited in Submittal of Monitoring Results and Reports (Part II.C.8).

11. Other Noncompliance Reporting. The permittee must report all instances of noncompliance not required to be reported within 24 hours, at the time that monitoring reports for Part II.C.8 (Submittal of Monitoring Results and Reports) are submitted. The reports must contain the information listed in Part II.C.10.b of this permit.

12. Changes in Discharge of Toxic Substances. The permittee must notify the Director, IDEQ, and the Shoshone-Bannock Tribes as soon as the permittee knows, or has reason to believe:

a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic

pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) one hundred micrograms per liter (100 µg/L);
(2) two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitropenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
(3) five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with; or
(4) the level established by the Director in accordance with 40 CFR 122.44(f).

b. That any activity has occurred or will occur that would result in any discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in the permit, if that discharge may reasonably be expected to exceed the highest of the following "notification levels":

(1) five hundred micrograms per liter (500 µg/L);
(2) one milligram per liter (1 mg/L) for antimony;
(3) ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
(4) the level established by the Director in accordance with 40 CFR 122.44(f).

13. Planned Changes. The permittee must give notice to the Director, IDEQ and the Shoshone-Bannock Tribes, as soon as possible, of any planned physical alterations or additions to the permitted facility whenever:

a. the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

b. the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under Part II.C.12 (Changes in Discharge of Toxic Substances).

14. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

III. SPECIAL CONDITIONS

A. Quality Assurance Requirements.

1. Within 90 days of the effective date of this permit, the permittee must develop and submit a Quality Assurance Plan (QAP) to the Director, IDEQ, and the Shoshone-Bannock Tribes. The QAP shall address effluent, internal waste stream, receiving water, and receiving water sediment monitoring.

   note: The document *Guidance for Preparation of Quality Assurance Project Plans*, EPA, Region 10, Quality and Data Management Program, QA/G-5, can be used as a helpful reference guide in preparing the QAP. This document is available in Adobe Acrobat format at http://www.epa.gov/r10earth/offices/oea/qaindex.htm.

2. The QAP must be consistent with the Receiving Water Monitoring Plan developed under Part III.E of this permit.

3. At a minimum, the following information must be provided in the QAP:

   a. Sample locations (map and physical description, which includes station identification number, latitude, and longitude);

   b. Sample frequency;

   c. Sediment compositing scheme (sample locations/depths for composites);

   d. Sample handling, storage, transport, and Chain-of-Custody procedures;

   e. Parameters, preparation and analysis methods, detection limits, and volume of sample required for each analyte in each medium (i.e., water or sediment);

   f. Number of QC samples, spikes and replicates required for analysis (for precision accuracy);

   g. Documentation requirements for the laboratory (i.e., retention or holding time, QA/QC procedures for test methods, volume of sample collected, field test blanks, etc.);

   h. Organizational responsibilities - who is responsible for QA/QC activities (i.e., who takes samples, who reviews the data analysis, etc.); and

i. Name(s), address(es), and phone number(s) of laboratories used or proposed to be used by the permittee.

4. The permittee must correct the QAP or address any comments submitted by the Director, IDEQ, or the Shoshone-Bannock Tribes prior to EPA approval of the plan. If no comments are received within 60 days of the submittal date, then the plan will be considered acceptable as submitted.

5. The permittee is responsible for reviewing and updating the approved QAP to ensure all material is current and applicable.

6. The permittee must amend the QAP whenever there is a modification in the sample collection, sample analysis, or conditions or requirements of the QAP. Any amendments to the QAP must be submitted to the Director, IDEQ, and the Shoshone-Bannock Tribes at least 15 days prior to implementing the amendment. Part III.A.4 applies to amendments to the QAP as well.

7. Copies of the most current QAP must be kept on site and must be made available to the Director, IDEQ, and the Shoshone-Bannock Tribes upon request.

B. Best Management Practices (BMP) Requirements.

1. Within 180 days of the effective date of this permit, the permittee must develop and implement a Best Management Practices (BMP) Plan. A copy of the BMP Plan must be submitted to the Director, IDEQ, and the Shoshone-Bannock Tribes.

2. The permittee must address any comments submitted by the Director, IDEQ, or the Shoshone-Bannock Tribes and make any necessary corrections to the BMP Plan within 30 days of receipt of comments.

3. The permittee must retain the BMP Plan on site and make it available to EPA, IDEQ, and the Shoshone-Bannock Tribes upon request.

4. The permittee must review the Plan annually and update it whenever there is a change in the facility design, construction, operations, or maintenance. Any revisions must be submitted to the Director, IDEQ, and the Shoshone-Bannock Tribes.

5. The permittee must modify the Plan to incorporate revised BMP requirements whenever the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the

generation of pollutants and their release or potential release and/or meeting the specific requirements of this permit.

6. Through the implementation of the BMP Plan, the permittee must be consistent with the following objectives for the control of pollutants:

   a. Prevent or minimize the generation and the potential for release of pollutants from the facility to the Portneuf River through normal and ancillary activities;

   b. Ensure proper operation and maintenance of the facility;

   c. Identify potential sources of pollutants at the facility;

   d. Identify pollution prevention measures and controls appropriate for the facility;

   e. Ensure proper management of solid and hazardous waste in accordance with regulations promulgated under the Resource Conservation and Recovery Act (RCRA); and

   f. Reflect requirements for Spill Prevention, Control, and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR 112.

7. The permittee must develop and implement a BMP Plan that is consistent with the general guidance contained in the publications entitled *Guidance Manual for Developing Best Management Practices (BMPs)* (USEPA, 1993) or any subsequent revisions. The BMP Plan must contain, as a minimum, the following information:

   a. Statement that the Plan has been reviewed and fulfills the requirements set forth in this permit. The statement must be certified by the dated signatures of a Plant Engineering representative and the Plant Manager.

   b. Name and location of facility.

   c. Statement of BMP policy.

   d. Structure, functions, and procedures of the BMP review.

   e. Specific management practices and standard operating procedures to achieve BMP objectives including, but not limited to, the following:

      (1) equipment maintenance and replacement;

(2) materials handling;
(3) operational phases (e.g., startup procedures) for each system;
(4) a description of each waste stream produced at the facility, including the type and quantity of pollutants and the source of the waste stream; and
(5) a diagram showing the management of wastewater systems.

f. Risk identification and assessment.

(1) Each component or system must be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to the Portneuf River due to equipment failure, improper operation, and natural phenomena such as rain or snowfall, etc. The examination must include all normal operations and ancillary activities including material storage areas, plant site runoff, in-plant transfer, process and material handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage.
(2) Prediction of direction, rate of flow, and quantity of pollutants which could be discharged to the Portneuf River as a result of equipment failure (e.g., tank overflow or leakage, shutdown of cooling fountain), natural condition (e.g., precipitation runoff from ore or slag piles), or other circumstances that indicates reasonable potential for an unauthorized discharge.
(3) A diagram showing all potential sources of pollutants that would be discharged through outfall 001 at the facility.

g. Specific BMPs or other measures which ensure that the following specific requirements are met:

(1) Solids, sludges, or other pollutants removed in the course of treatment or control of water and waste waters (e.g., dredged sludge from the IWW pond) are disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.
(2) Berms, including any pond walls, ditches, dikes, dams and similar water retention structures must be constructed in a manner such that they do not allow the passage of storm water to be discharged through outfall 001.

(3) All water control devices including, but not limited to, structures and berms, and all solids retention structures, such as berms, dikes, pond structures and dams, must be maintained to continue their effectiveness and to protect from unexpected and catastrophic failure.

(4) All storm water, including snow melt runoff, at the facility is diverted and/or collected such that it does not discharge to the Portneuf River.

(5) Fugitive dust emissions from coal and ore handling areas are prevented or minimized. At a minimum, the facility must employ water spraying (or its equivalent) of coal and ore piles to prevent fugitive dust emissions. The facility must establish procedures to minimize off-site tracking of coal and ore dust. To prevent off-site tracking, the facility may consider specially designed tires, or washing vehicles in a designated area before they leave the site and containing the wash water.

(6) Spills and/or the contamination of storm water runoff from chemical loading/unloading areas are prevented or minimized. At a minimum, the permittee must use the following measures or their equivalent:

   (a) use containment curbs at chemical loading/unloading areas to contain spills,
   (b) ensure personnel working in area are familiar with spill prevention and response procedures,
   (c) ensure that any leaks or spills are immediately contained and cleaned up, and
   (d) where practicable, ensure that chemical loading/unloading areas are covered.

(7) Wastewater produced from auxiliary operations such as pump seal leaks, dripping hoses and valves, washdown of equipment and tank cars, pipe and equipment leaks, tank leaks, and solids spills is minimized and contained, to the extent possible. At a minimum, the facility must employ the following measures or their equivalent:

   (a) use protective guards around tanks,
   (b) use containment curbs,
   (c) use spill and overflow protection (drip pans or other containment devices),
   (d) use dry cleanup methods, and
   (e) visually inspect structural integrity of all above ground tanks, pipelines, pumps, and other related equipment on a weekly bases.

(8) Separation of waste streams into non-contaminated cooling water, process water, and auxiliary streams (ion exchange regenerants, cooling tower blowdowns, boiler blowdowns, leaks, washings, etc).
(9) Reduce the potential for an oil spill or a chemical spill.

h. Procedures for reporting incidence of BMP violations.

i. Good housekeeping practices.

j. Internal inspections and recordkeeping.

k. Security.

l. Employee Training.

C. Toxicity Reduction Evaluation (TRE) Requirements.

1. Within 180 days of the effective date of this permit, the permittee must submit to the Director, IDEQ and the Shoshone-Bannock Tribes a copy of the facility's initial investigation Toxicity Reduction Evaluation (TRE) Work Plan.

2. The TRE Work Plan must describe the steps the permittee intends to follow if toxicity is detected and must include, at a minimum, the following steps:

a. Information and Data Acquisition. Collect one sample approximately every two weeks over a twelve-week period. Testing must commence within two weeks of receipt of the sample results that indicated the exceedance of the WET monitoring trigger. These testing requirements may be modified based on consultation with the Director. If none of the additional tests indicates toxicity, then the permittee may return to the normal testing frequency specified in Table II-1.

b. Performance Evaluation. Identify the facility's methods of maximizing in-house treatment efficiency of the effluent and good housekeeping practices.

c. Toxicity Identification Evaluation. Identify investigation and evaluation techniques or actions that may be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency.

d. Toxicity Control. Develop actions that will be taken to mitigate the impact of the discharge and to prevent the recurrence of toxicity.

e. Schedule. Develop a schedule for TRE.

note: The document *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs)*, EPA/600/2-88/070, may be helpful in developing a TRE Work Plan for this facility.

D. Bioassessment Study.

1. The permittee shall conduct a field bioassessment study of the Portneuf River to determine the effects of their discharge on aquatic species.

2. The permittee must develop a field bioassessment study plan in cooperation with EPA, IDEQ, and the Shoshone-Bannock Tribes Fisheries Department.

3. The permittee shall submit the field bioassessment study plan to EPA, IDEQ, and the Shoshone-Bannock Tribes Fisheries Department for approval by January 15, 2002.

4. The permittee shall implement the field bioassessment study plan by March 15, 2002.

5. The permittee must submit a final report with the results of the bioassessment study to EPA, IDEQ, and the Shoshone-Bannock Tribes Fisheries Department with the permit renewal application.

E. Receiving Water Monitoring Plan.

1. The permittee must develop a Receiving Water Monitoring Plan in cooperation with other Portneuf River stakeholders and submit it to IDEQ within 90 days of the effective date of this permit.

2. The monitoring plan must be consistent with the requirements in the QAP (Part III.A) and should include the monitoring requirements of this permit that pertain to the parameters in the Portneuf River TMDL and provide details for the specific locations of the receiving water monitoring locations. Instream monitoring conducted as part of this plan shall incorporate depth/spatially integrated sampling techniques.

3. The permittee must implement the monitoring plan within 30 days of IDEQ acceptance of the plan and notify EPA, in writing, that the

plan has been completed within 5 days of IDEQ acceptance of the plan.

IV. STANDARD CONDITIONS

A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee must give advance notice to the Director, IDEQ, and the Shoshone-Bannock Tribes of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

1. The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

2. Civil Penalties. Pursuant to 40 CFR 19 and the Act, any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any such Sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Sections 402(a)(3) or 402(b)(8) of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) [currently $27,500 per day for each violation].

3. Administrative Penalties. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such Sections in a permit issued under Section 402 of the Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) [currently $11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $27,500]. Pursuant to 40 CFR 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) [currently $11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $137,500].

4. Criminal Penalties.

   a. Negligent Violations. The Act provides that any person who negligently violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such Sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two years, or both.

   b. Knowing Violations. The Act provides that any person who knowingly violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such Sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six years, or both.

   c. Knowing Endangerment. The Act provides that any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such Sections in a permit issued under Section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for a second or subsequent convictions.

d. False Statements. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

B. Duty to Reapply. If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR 122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate. The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed, or used, by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 122.62, 122.64, or 124.5.

The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of state or local laws or regulations.

H. Duty to Provide Information. The permittee must furnish to the Director, IDEQ, and the Shoshone-Bannock Tribes, within any reasonable time specified in the request, any information that the Director, IDEQ, or the Shoshone-Bannock Tribes may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to the Director, IDEQ, or the Shoshone-Bannock Tribes, upon request, copies of records required to be kept by this permit.

I. Inspection and Entry. The permittee must allow the Director, IDEQ, the Shoshone-Bannock Tribes, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

J. Signatory Requirements. All applications, reports or information submitted to the Director, IDEQ and the Shoshone-Bannock Tribes shall be signed and certified as follows:

1. Permit Applications.

   a. For a corporation: by a responsible corporate officer.

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by the Director, IDEQ, or the Shoshone-Bannock Tribes must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. the authorization is made in writing by a person described above;

   b. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and

   c. the written authorization is submitted to the Director, IDEQ and the Shoshone-Bannock Tribes.

3. Changes to authorization. If an authorization under Part IV.J.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV.J.2 must be submitted to the Director, IDEQ, and the Shoshone-Bannock Tribes prior to, or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this Part must make the following certification:

   "*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*"

K. Anticipated Noncompliance. The permittee must give advance notice to the Director, IDEQ, and the Shoshone-Bannock Tribes of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

L. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)

M. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to the Director, IDEQ, and the Shoshone-Bannock Tribes, it must promptly submit such facts or information.

N. Bypass.

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts IV.N.2 and IV.N.3.

2. Notice.

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior notice, if possible, at least 10 days before the date of the bypass. Notice must include the nature and intent (i.e., description and purpose) of the bypass.

b. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Twenty-four Hour Notice of Noncompliance Reporting (See Part II.C.10).

3. Prohibition of bypass.

a. Bypass is prohibited and the Director, IDEQ, or the Shoshone-Bannock Tribes may take enforcement action against the permittee for a bypass, unless:

(1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during

normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) the permittee submitted notices as required under Part IV.N.2 (Notice).

b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determined that it will meet the three conditions listed in Part IV.N.3.a.

O. Upset.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of Part IV.O.2 (Conditions necessary for a demonstration of upset). No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. an upset occurred and that the permittee can identify the cause(s) of the upset;

b. the permitted facility was at the time being properly operated;

c. the permittee submitted notice of the upset as required under Part II.C.10 (Twenty-four Hour Notice of Noncompliance Reporting); and

d. the permittee complied with any remedial measures required under Part IV.D (Duty to Mitigate).

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

P. Availability or Reports. In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits,

and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

Q. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

V. DEFINITIONS

"Act" means the Clean Water Act.

"Administrator" means the Administrator of the EPA, or an authorized representative.

"Authorized representative of the Director" means any person who has been delegated authority by the Director to act on the behalf of the Director.

"Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

"Best Management Practices (BMPs)" means schedules of activities prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Biological assessment" is an evaluation of the biological condition of a waterbody using biological surveys and other direct measurements of resident biota in surface waters.

"Biological integrity" is the condition of the aquatic community inhabiting unimpaired water bodies of a specified habitat as measured by community structure and function.

"Biological monitoring", also known as "biomonitoring," describes the living organisms in water quality surveillance used to indicate compliance with water quality standards or effluent limits and to document water quality trends. Methods of biological monitoring may include, but are not limited to, toxicity testing such as receiving water toxicity testing or whole effluent toxicity testing.

"Biological survey" or "biosurvey" is the collecting, processing, and analyzing of a representative portion of the resident aquatic community to determine its structural and/or functional characteristics.

"Boiler blowdown" is when the water in the boiler is flushed out to remove impurities that have concentrated in the liquid phase to ensure optimal operating conditions for the boiler. The boiler blowdown waste stream includes wastes from the boiler laboratory facility.

"Boiler laboratory facility" is used to carry out chemical analyses as a part of controlling the operation of the boilers and ion exchange unit. Activities include analysis of boiler and ion exchange water.

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

"Chronic toxicity" measures a sublethal effect (e.g., reduced growth, reproduction) in an effluent or receiving waters compared to that of the control organisms.

"Chronic toxic unit (TU_c)" is a measure of chronic toxicity. TU_c is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/NOEC).

"Compliance schedule" means a schedule of remedial measures included in a permit or an enforcement order that contains a sequence of interim requirements (e.g., actions, operations, or milestone events) that lead to compliance with the CWA and regulations.

"Contaminated non-process waste water" means any water that, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct, or waste product by means of: precipitation runoff; accidental spills; accidental leaks caused by the failure of process equipment which is contained or terminated within the shortest reasonable time (not to exceed 24-hours after discovery or when discovery should reasonably have been made, whichever is earliest); discharges from safety showers and related personal safety equipment; and equipment washings for the purpose of safe entry, inspection, and maintenance, provided that all reasonable measures have been taken to prevent, reduce, eliminate, and control to the maximum extent feasible such contact and provided further that all reasonable measures have been taken that will mitigate the effect of such contact once it has occurred.

"Contiguous zone" means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

"Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

"Daily maximum limit" means the maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed in terms of concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all the measurements taken that day.

"Depth/spacially integrated" means collection of samples using an equal-width-increment (EWI) sampling method. The EWI method usually results in a composite sample that represents the discharge-weighted concentrations of the stream cross section being sampled. The EWI method is used to divide a selected cross section of a stream into increments having a specified width. The term vertical refers to that location within the increment at which the sampler is lowered and raised through the water column. EWI verticals are located at the midpoint of each width increment.

"Director" means the Director of the Office of Water, EPA Region 10, or an authorized representative.

"Effluent limitation" means any restriction imposed by the Director on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States," the waters of the "contiguous zone," or the ocean.

"Effect concentration (EC)" is a point estimate of the toxicant concentration that would cause a given percent reduction (p) in quantal biological measurement (e.g., larval development, survival) calculated from a continuous model (e.g., USEPA Probit Model).

A "Grab" sample is an individual sample or measurement taken at a specific time or over a period of time not exceeding 15 minutes.

"Hazardous substance" means any substance, other than oil, which presents an imminent and substantial danger to the public health or welfare (including but not limited to fish, shellfish, wildlife, shorelines and beaches) when discharged in any quantities to waters of the United States.

"Ion exchange" is a water treatment process to remove all mineral salts prior to entering the boiler.

"Ion exchange regeneration" is the process of backwashing the filter beds in the ion exchange unit to remove the build-up of mineral salts.

"Inhibition concentration (IC)" is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., the EPA Interpolation Model).

"Instantaneous maximum limit" is the maximum allowable concentration of a pollutant determined from the analysis of <u>any</u> discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.

"Lowest observed effect concentration (LOEC)" is the lowest concentration of toxicant to which organisms are exposed in a test, which causes statistically significant adverse effects on the test organisms (i.e., where the values for the observed endpoints are significantly different, statistically, from the control).

"Maximum daily discharge limitation" means the highest allowable "daily discharge".

"Method detection limit (MDL)" is defined as the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero as determined from analysis of a sample in a given matrix containing the analyte.

"Minimum level (ML)" is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.

"Noncontact Cooling Water" means water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product. The facility processes that contribute to noncontact cooling water identified by the permittee in the application process are briquetting, calcining, furnaces and electrostatic precipitators.

"Non-quantal" means a biological measurement of the test population, such as a growth or reproduction response.

"No observed effect concentration (NOEC)" is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic (full life-cycle or partial life-cycle (short term)) test, that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significant different from controls.)

"pH" is a measure of the hydrogen ion concentration of water or wastewater; expressed as the negative log of the hydrogen ion concentration in mg/L. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.

"Pollutant", for the purposes of this permit, is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or pathogenic organisms that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food-chain, could, on the basis of information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

"Process wastewater" means any water that, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. Process water includes product water, solvent water, transport water,

contact cooling water, atmospheric seal water, scrubber water, stormwater, and auxiliary process water. The term process water does not include "contaminated non-process waste water."

"Quantal" means an all or nothing response, such as death, fertilization, germination, or development.

"Quarter", for the purposes of this permit, is defined as winter (January, February, March), spring (April, May, June), summer (July, August, September), and fall (October, November, December).

"Regional Administrator" means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Static-renewal test" means that test organisms are exposed to a fresh solution of the same concentration of sample every 24-hours or other prescribed interval, either by transferring the test organisms from one test chamber to another or by replacing all or a portion of solution in the test chambers.

"Suites of tests" means the two or three species used for testing during the permit term.

"Total residual chlorine" refers to the sum of the free chlorine and combined chlorine in fresh water. When chlorine is added to fresh water, the solution will usually contain two forms of free chlorine: hypochlorous acid (HOCl) and the hypochlorite ion (OCl^-). If the water contains ammonia, the solution will probably also contain two forms of combined chlorine: monochloramine and dichloramine. All four forms of free and combined chlorine are quite toxic to aquatic organisms.

A "Toxic pollutant" is a pollutant or combination of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction, or physical deformations to the organism or its offspring. (See list of pollutants at Section 307(a)(1) of the CWA.)

A "Toxicity Reduction Evaluation (TRE)" is a site-specific study conducted in a stepwise process to identify the cause of toxicity, isolate the source of toxicity, evaluate the effectiveness of toxicity control options, and confirm the reduction of toxicity in the effluent.

A “Toxicity test” is a procedure to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of effect on exposed test organisms of a specific chemical or effluent.

A “24-hour composite” sample means a combination of eight discrete sample aliquot of at least 100 milliliters, collected at periodic intervals from the same location during the operating hours of the facility over a 24 hour period. The composite must be time-proportioned. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.

“Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

“Whole effluent toxicity” means the total toxic effect of an effluent measured directly with a toxicity test.

VI. ACRONYMS

ASTM	American Society for Testing and Materials
BMP	Best management practice
BTU	British thermal unit
°C	Degree Celsius or centigrade
CaCO3	Calcium carbonate
CFR	Code of Federal Regulations
CWA	Clean Water Act
DMR	Discharge monitoring report
DO	Dissolved oxygen
EPA	U.S. Environmental Protection Agency
°F	Degree Fahrenheit
FR	Federal register
gal	gallon
IC25	25% inhibition concentration
IDEQ	Idaho Department of Environmental Quality
IWW	Industrial waste water
kg	Kilograms
lbs/day	Pounds per day
MDL	Method detection limit
mgd	million gallons per day
mg/L	Milligrams per liter
ML	Minimum level
N	Nitrogen
ng/L	nanograms per liter
NOEC	No observed effect concentration
NPDES	National Pollutant Discharge Elimination System
OW	Office of water
P	Phosphorus
P4	Elemental phosphorus
pCi/L	Picocurries per liter
PO_4	Orthophosphate
QA/QC	Quality assurance/quality control
QAP	Quality assurance plan
RCRA	Resource Conservation and Recovery Act
RWC	Receiving water concentration
SM	Standard methods
SPCC	Spill Prevention, Control, and Countermeasure
s.u.	Standard units
TAC	Test acceptability criteria
TDS	Total dissolved solids
TOC	Total organic carbon
TPH	Total petroleum hydrocarbon
TRE	Toxics reduction evaluation
TSS	Total suspended solids
TU_c	Chronic toxic unit
µg/L	Micrograms per liter
WAD	Weak acid dissociable

WET	Whole effluent toxicity